

Date: Wed, 24 Mar 93 09:00:25 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #370  
To: Info-Hams

Info-Hams Digest Wed, 24 Mar 93 Volume 93 : Issue 370

## Today's Topics:

Armstrong/DeForest regenerative receiver  
ARRL Bulletin 30 ARLB030  
Autopatch  
CW code speed (followup)  
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N.A. 5.000MHz Time Signal - not WWV - what is it?  
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Offset to UTC calculation?  
RFD: reorganization of rec.radio.amateur  
Space Bulletin 009 ARLS009  
subscribe  
TS440 receiver audio mods file  
TS50 extended transmit mod file  
Undeliverable Mail to Bob, KU7G

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>

Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to [brian@ucsd.edu](mailto:brian@ucsd.edu).

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 24 Mar 93 10:14:52  
From: idacrd.ccr-p.ida.org!idacrd!n4hy@uunet.uu.net  
Subject: Armstrong/DeForest regenerative receiver  
To: info-hams@ucsd.edu

JT uses the following unacceptable phrase:

>Armstrong/DeForest receiver.

No self respecting ham would put Armstrong's name anywhere near DeForest's unless some four letter words precedes DeForest's. It is, was, and always will been the ARMSTRONG regenerative receiver.

Bob

--

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Robert W. McGwier | n4hy@ccr-p.ida.org  
Center for Communications Research | Interests: amateur radio, astronomy, golf  
Princeton, N.J. 08520 | Asst Scoutmaster Troop 5700, Hightstown

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Date: Wed, 24 Mar 93 09:30:36 GMT  
From: usc!zaphod.mps.ohio-state.edu!mstar!n8emr!bulletin@network.UCSD.EDU  
Subject: ARRL Bulletin 30 ARLB030  
To: info-hams@ucsd.edu

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| Automatic relayed from packet radio via |  
| N8EMR's Ham BBS, 614-895-2553 |  
=====

ZCZC AG71  
QST de W1AW  
ARRL Bulletin 30 ARLB030  
>From ARRL Headquarters Newington CT  
March 22, 1993  
Relayed by KB8NW/OBS & BARF-80 BBS  
To all radio amateurs

SB QST ARL ARLB030

FCC has proposed establishing a compliance policy for amateur stations participating in automatic message forwarding systems to hold the licensee of the station originating a message and the licensee of the first forwarding station primarily accountable for the content of the communications.

Because message screening is difficult with these high speed, digital technology, automated systems and screening at each station in these systems diminishes the advantage of high speed data transfer, FCC proposed licensees of station that only retransmit messages within a high speed message forwarding system would not be held accountable for communications they forward or their stations

retransmit unwittingly.

This is a breaking story, so text of the actual Notice of Proposed Rule Making, NPRM FCC 93-153, is not yet available. As of press time the comments deadline is not yet known. Stay tuned to W1AW for updates.

NNNN

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Date: Wed, 24 Mar 1993 12:46:16 GMT  
From: usc!howland.reston.ans.net!gatech!kd4nc!ke4zv!gary@network.UCSD.EDU  
Subject: Autopatch  
To: info-hams@ucsd.edu

In article <1993Mar23.175725.1@vaxc.stevens-tech.edu> u95\_dgold@vaxc.stevens-tech.edu writes:

>I have designed and built a cross band telephone autopatch system; The output >is on 2m and the input is on 70cm. I would like to know if it would be in >compliance with FCC rules to operate this system without a CW id on the output >after each call.

The FCC rules don't require a CW ID for any transmission except a CW transmission. It's allowed, but it's not required. Normally you'd ID using the same mode as the rest of the transmission, in this case by voice announcement.

Gary

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--  
Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary  
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary  
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary  
Lawrenceville, GA 30244 | |

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Date: 24 Mar 93 13:38:19 GMT  
From: pipex!marble.uknet.ac.uk!uknet!edcastle!spider!raft.spider.co.uk!  
jmorris@uunet.uu.net  
Subject: CW code speed (followup)  
To: info-hams@ucsd.edu

[A few days ago somebody asked about the relationship between CW speed and dot length, and I (along with others) responded with the standard "wpm=1.2/seconds-per-dot" formula. I also mentioned that I had the formula for Farnsworth spacing, but did not post it. A few people have e-mailed me asking for more, so I hope to satisfy all requests by this

post.]

There is no simple formula (unless the net knows better :-), or at least I have never seen one published, so some time ago I sat down and worked it out. My calculation goes like this:

In Farnsworth code the idea is to send the characters at some speed  $\langle f \rangle$  but to insert extra spacing so that the overall text speed is something less,  $\langle s \rangle$ . Suppose you have a text to send at this speed (these speeds?)

Work out the length of the text, in dots, with a dash = 3 dots, an inter-element gap (dot to dot, etc) = 1 dot, a character gap 3 dots, and a space four dots. Suppose you find that the text is  $\langle d \rangle$  dots long. To send it at  $\langle f \rangle$  wpm (the fast speed) would take  $\langle d \rangle * 1.2 / \langle f \rangle$  seconds. We want to send it at  $\langle s \rangle$  wpm (the slow speed), which should take  $\langle d \rangle * 1.2 / \langle s \rangle$  seconds. So for this text we must fit in an extra  $(\langle d \rangle * 1.2 / \langle s \rangle - \langle d \rangle * 1.2 / \langle f \rangle)$  seconds. This simplifies to  $\langle d \rangle * 1.2 * (1 / \langle s \rangle - 1 / \langle f \rangle)$  seconds. It is now a matter of taste how you distribute this extra space in the text. Some people prefer to add extra time only after audible characters; while others add it after characters and spaces too. Count the characters in your text (including or excluding spaces, according to your choice), and divide the extra time you just worked out by this. The result is the extra time you must leave after each character to get the desired spacing. Rewrite your CW send code accordingly.

The above is the "Rolls-Royce" method, and works exceedingly well - but it does mean inspecting the text before you send it. If you don't have access to the full text - maybe its coming from a random character generator - then you have to approximate (aka "guess").

One approximation is that a word is 50 dots and (including the space) six characters - "Paris" returns. (In fact on-air words are usually shorter, because of all those abbreviations. So my nrs not vy gud sri om.) If the text has  $\langle d \rangle$  dots then it would "normally" be about  $\langle d \rangle / 50$  words and contain  $\langle d \rangle * 6 / 50$  characters (counting the space as a character). From above, we need to add  $\langle d \rangle * 1.2 * (1 / \langle s \rangle - 1 / \langle f \rangle)$  seconds in total to the message, spread equally over  $\langle d \rangle * 6 / 50$  characters. So the extra per character is:

$$\begin{aligned} & \langle d \rangle * 1.2 * (1 / \langle s \rangle - 1 / \langle f \rangle) \\ & \hline \\ & \langle d \rangle * 6 / 50 \end{aligned}$$

The  $\langle d \rangle$ 's cancel (which is just as well, as we are looking for an approximation independent of the length of the text!), and arithmetic joins the constants, giving the extra delay after each character to be

10 \* (1/<f> - 1/<s>) seconds, where <f> and <s> are in wpm. So for a rough and ready Farnsworth code sequence plumb that value into your CW program.

Note that this is only as good as the approximations that a word is 50 bits and that there are 6 characters per word. But then again, as the idea is for teaching, with the ultimate aim of reducing the delay to zero (ie <s> == <f>) great precision is spurious anyway. If you want it, generate the text ahead of time and use the full calculation method - or make some other approximations and rework.

73, John, GM4ANB.

ps - I see the tedious USA "no-code/code" flame war is breaking out again. Any chance of moving that to rec.radio.amateur.policy?

pps - If you must fight it out here, please stop calling it "Morris". (Pretty please?) My brain's background pattern recognition cells flash on the appearance of my surname every time - most disconcerting! (Mind you, not quite as bad as that day many years ago when I discovered that the USA used my first name as a synonym for "toilet"....)

bcnu.

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John Morris != Spider Systems jmorris@spider.co.uk GM4ANB@GB7EDN.#77.GBR.EU

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Date: 23 Mar 93 15:39:15 EST  
From: psinntp!arrl.org@uunet.uu.net  
Subject: How long to get new Callsign?  
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, ron@topaz.bds.com (Ron Natalie) writes:  
>I've noticed the in addition to the FCC being loaded, the League seems  
>to be suffering a bit. In the past I used to get a postcard indicating  
>that they had sent the session to the FCC within a day or so of them  
>receiving it. Our Feb 27 session, should have arrived FEDEX at the ARRL  
>on 2 March, but didn't clear there until the 11'th. If I had taken the  
>allowable 10 days it could have added three weeks to the processing time.

As a follow up to your data point, Ron, yes we do have heavier and lighter processing periods here at the ARRL/VEC. March and April are our heaviest processing months, with October and November also being a peak, but somewhat less. FWIW...

73,

Bart J. Jahnke, KB9NM  
Manager  
ARRL/VEC.

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Date: 24 Mar 1993 13:12:04 GMT  
From: sdd.hp.com!zaphod.mps.ohio-state.edu!howland.reston.ans.net!  
usenet.ins.cwru.edu!cleveland.Freenet.Edu!cs684@network.UCSD.EDU  
Subject: Icom W2A Power Plug  
To: info-hams@ucsd.edu

Is the 12 volt plug used for this handheld a "proprietary" ICOM plug? I've searched all over the Houston area for one and ICOM wants about \$7 or so for one with a piece of wire attached to it!

Any third party sources would be appreciated.

--Charlie WD5GNW

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Date: 23 Mar 93 22:19:08 est  
From: psinntp!arrl.org@uunet.uu.net  
Subject: N.A. 5.000MHz Time Signal - not WWV - what is it?  
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, jherman@uhunix.uhcc.Hawaii.Edu (Jeff Herman) writes:

[deletions]

>Just for info, out here in the Pacific (Hawaii) I hear what sounds like  
>about half a dozen time signal stations; Japan and China are contributors.  
>It's a real mess to listen to, for no one's clock is in sync with anyone  
>else's; at second :00 each minute it sounds like a short burst of machine  
>gun fire!  
>Jeffrey, NH6IL.

The 1993 \*World Radio TV Handbook\* lists 13 standard-time-and-frequency stations at 5 MHz. Of the three that transmit announcements in Spanish (LOL, Argentina; HD2IOA, Ecuador; YVTO, Venezuela), Venezuela is perhaps the most commonly audible in North America, with Ecuador second. LOL sometimes makes it up, too.

As for time signals being out of sync with each other: Worldwide propagation \*can\* delay time signals by a small fraction of a second,

but what you're mostly likely hearing is the offset that occurs when some stations on a channel transmit ticks/pips on the UTC scale and one or more others transmit pips on a different scale--say, UT1. BPM, Xian, China, at least at one time transmitted UT1 during part of their schedule, UTC during the remainder. During periods when UT1 and UTC are close to a half second apart, listening to a standard-frequency-and-time channel carrying signals from UTC and UT1 stations can indeed convey the impression that someone's clock is off.

Regards/WJ1Z

David Newkirk, Senior Asst Tech Editor		voice: 203-666-1541 X280
American Radio Relay League		fax: 203-665-7531
225 Main St, Newington CT 06111 USA		net: dnewkirk@arrl.org

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Date: 24 Mar 93 00:28:28 EST  
From: psinntp!arrl.org@uunet.uu.net  
Subject: Nicad Memory Effect-Fact or Myth?  
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, gary@ke4zv.uucp (Gary Coffman) writes:  
>\*pack\* fully is a tricky process because the weaker cells will discharge  
>first and begin to \*reverse\* charge. This will almost surely damage the  
>cells. The \*correct\* way is to take the pack apart and discharge each  
>cell \*individually\*. Since this is a pain, you want to avoid having  
>to deep discharge your battery as a routine practice.

Why can't you just monitor the voltage on each cell instead of taking the battery apart? You then stop discharging as soon as any of the cells reaches the desired voltage. This is why voltmeters are such handy devices--you can often test circuits without taking connections apart.

No, I didn't just recommend that you discharge the batteries, but if you insist upon it, you might as well do it right. HQ staffers tend to be on a tight budget, so I like to see my Nicads last a long time. Thus, I don't bother with discharging cells, except for the occasional test to measure their capacity. Last year I tested some RS Nicads I bought in 1986.

Zack Lau KH6CP/1

Internet: zlau@arrl.org	"Working" on 24 GHz SSB/CW gear
	Operating Interests: 10 GHz CW/SSB/FM
US Mail: c/o ARRL Lab	80/40/20 CW
225 Main Street	Station capability: QRP, 1.8 MHz to 10 GHz

Newington CT 06111 modes: CW/SSB/FM/packet  
Phone (if you really have to): 203-666-1541  
amtor/baudot

Date: 24 Mar 1993 11:31:38 -0500  
From: usc!sol.ctr.columbia.edu!eff!news.byu.edu!news.mtholyoke.edu!  
mhc.mtholyoke.edu!wvogel@network.UCSD.EDU  
Subject: no-coders, scum of the earth  
To: info-hams@ucsd.edu

Derek Wills (oo7@emx.cc.utexas.edu) wrote:

> Yeah, right on - check out the latest QST. This guy got fined \$50,000 for  
> making fake distress calls. I bet he was one of dem no-good lazy no-code  
> types!

>

i doubt that is the proper call sign reread the article  
that particular call belongs to an EXTRA ham from Fairfax Va.

another case of hoof and mouth disease? (open mouth insert foot?)

>

> (\* and now "was")

>

> Derek "no-good lazy know-code type" Wills (AA5BT, G3NMX)

> Department of Astronomy, University of Texas,

> Austin TX 78712. (512-471-1392)

> oo7@astro.as.utexas.edu

> oo7@emx.utexas.edu

> -----

Date: Wed, 24 Mar 1993 12:55:53 GMT  
From: usc!howland.reston.ans.net!gatech!kd4nc!ke4zv!gary@network.UCSD.EDU  
Subject: Offset to UTC calculation?  
To: info-hams@ucsd.edu

In article <930323145741@nauvax.ucc.nau.edu> cvm@nauvax.ucc.nau.edu (Chris Michels) writes:

>How can I determine the offset to UTC at my location? I live in  
>Flagstaff, Arizona which is 111 39 02 N and 35 11 53 W according to the  
>geographic name server at the University of Michigan.

If Flagstaff is 111 39 02 North and 35 11 53 West, you're lost. :-) You have longitude and latitude reversed.

Figure 15 degrees longitude per hour. Since you're at 111 degrees \*West\*, that makes local time about 7.4 hours behind UTC. The important thing for timekeeping, however, is to know your local \*standard\* time rather than local solar time. Depending on whether Flagstaff is in the Mountain or Pacific timezone, a government edict, you're either 7 or 8 hours behind UTC. Don't forget to allow for daylight savings time as well. That will add an additional hour during the months it's in effect.

Gary

--  
Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary  
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary  
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary  
Lawrenceville, GA 30244 | |

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Date: 24 Mar 1993 14:47:57 GMT  
From: swrinde!zaphod.mps.ohio-state.edu!cs.utexas.edu!tamsun.tamu.edu!cs.tamu.edu!  
kurt@network.UCSD.EDU  
Subject: RFD: reorganization of rec.radio.amateur  
To: info-hams@ucsd.edu

In article <1993Mar24.045821.7556@bongo.tele.com>, julian@bongo.tele.com (Julian Macassey) writes:

|>  
|> Should we all lisp because the king has a speech defect?  
|>

Yeth thir, if the king decreeth it. Thertainly.

8-} kf

--  
Kurt Freiberger, wb5bbw kurt@cs.tamu.edu 409/847-8607 fax:409/847-8578  
Dept. of Computer Science, Texas A&M University DoD #264: BMW R80/7 pilot  
"We preserve our freedom using three boxes: ballot, jury, and cartridge."

\*\*\* Not an official document of Texas A&M University \*\*\*

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Date: Wed, 24 Mar 93 09:30:36 GMT  
From: usc!zaphod.mps.ohio-state.edu!mstar!n8emr!bulletin@network.UCSD.EDU  
Subject: Space Bulletin 009 ARLS009  
To: info-hams@ucsd.edu

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| Automatic relayed from packet radio via |  
| N8EMR's Ham BBS, 614-895-2553 |  
=====

ZCZC AS88  
QST de W1AW  
Space Bulletin 009 ARLS009  
>From ARRL Headquarters Newington, CT  
March 22, 1993  
Relayed by KB8NW/OBS & BARF-80 BBS  
To all radio amateurs

SB SPACE ARL ARLS009  
ARLS009 STS-55 delayed

The launch of STS-55 was aborted three seconds before liftoff. A faulty valve signaled the computer shut down of one of the engines.

The mission will be delayed a minimum of three weeks. Monitor W1AW for word of a new launch date. Rescheduling may involve STS-56 being launched in April ahead of STS-55.

NNNN

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Date: 24 Mar 93 14:50:58 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: subscribe  
To: info-hams@ucsd.edu

subscribe info-hams

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Date: Wed, 24 Mar 1993 13:08:53 GMT  
From: swrinde!cs.utexas.edu!uwm.edu!linac!att!att-out!cbfsb!cbnewsb.cb.att.com!  
wa2ise@network.UCSD.EDU  
Subject: TS440 receiver audio mods file

To: info-hams@ucsd.edu

copied from packet:

Msg#	TSF	Size	#Rd	Date	Time	From	MsgID	To
38513	BF	1520	0	19-Mar	2236	N2FAM	2890_WA20LZ	MOD@USBBS ()
Sb: TS-440 RX Audio Mods								

Here's some easy modifications to improve the rx audio fidelity of Kenwood TS-440's. All references below are to the IF board component designations.

\* Increase C60 to a .47uf or 1 uf. This will increase low frequency response on all modes.

\* Decrease C51 to .01 uf. This will increase high frequency response on SSB/CW.

\* Try removing R263 (tacked on the bottom of the board on my early production unit). This will lower in amplitude the audio coming out of the detectors and improved the smoothness (a real technical term) of the audio, especially on AM signals.

And, of course, I take no responsibility for anything you do to your radio. Be careful. The IF board on the 440' is about the easiest one to get at.

73/Dave n2fam@ka3fmo.pa

=====

Note: I haven't tried or verified this, proceed at your own risk. WA2ISE

-----  
Date: Wed, 24 Mar 1993 13:05:52 GMT  
From: swrinde!cs.utexas.edu!uwm.edu!linac!att!att-out!cbfsb!cbnewsb.cb.att.com!  
wa2ise@network.UCSD.EDU  
Subject: TS50 extended transmit mod file  
To: info-hams@ucsd.edu

copied from packet:

1783	1	19-Mar	2227	KA4RKT	14874_MTPASW	MOD@USBBS ()
Sb: TX Coverage mod TS-50						

Hi folks,

I just got a spanking new Kenwood TS-50S

Searching around the local LLBBS's I found a very simple mod for

full transmit from 1.7 - 30 mhz....

Remove the bottom cover of the TS-50

Locate the PLL board -- it is the pc board on top of the main board,  
it has a shield on it's right side.

Locate the only non-surface mounted component on the PLL board --  
look near the rear left-hand side of the pll board  
(front of radio facing you) and remove the very  
obvious diode. You can't miss, ther's only one.

Replace cover.

Perform microprocessor reset as described in your manual.

Please -- This mod for use only by persons authorized to use those  
frequencies outside of the ham bands - such as MARS, CAP  
and such. This radio is not type accepted for commercial  
use outside of the ham bands....

Tom  
KA4RKT @ WB4TTZ-1

=====

Note: I haven't tried or verified this, proceed at your own risk. WA2ISE

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Date: Wed, 24 Mar 1993 00:53:15 CST  
From: swrinde!cs.utexas.edu!convex!news.oc.com!utacfd.uta.edu!rwsys!ricksys!  
news@network.UCSD.EDU  
Subject: Undeliverable Mail to Bob, KU7G  
To: info-hams@ucsd.edu

sasminkey@eng.xyplex.com writes:

> Recently Cecil\_A\_Moore@ccm.hf.intel.com asked:  
>  
>>This morning I tried to reply to a request by Bob, KU7G, at his  
>>FROM: address of:  
>>  
>> psinntp!arrl.org@uunet.uu.net  
>>  
>>What I got was: Returned mail: Host unknown  
>>

>>There was no other address given except the one above. How does one  
>>reply to a posting when the FROM: address doesn't work?  
>  
> I'm glad you asked! I'm posting a reply to this because I think it will  
> be of interest to many folks. First of all, Internet etiquette ("netiquette")  
> says that you \*DO NOT\* send a message to Bob by posting something to  
> the newsgroup, e.g., "Message for Bob KU7G". You don't want to do this  
> because it's a waste of net bandwidth: that message to one person would be  
> send to literally thousands of sites all over the world, some of which pay  
> for their network connection based on the volume of traffic.

This is true but this might happen less often if people would put their Email address in the signature and not depend on their address being in the headers because if you post from Usenet, the mailing list gateway shows your From: address as some hybridization of the path the article took from your host to ucsd.edu which probably won't be a reliable path for mail.

--

Internet(MX): rick@ricksys.lonestar.org

If I bounce (the maps have errors that I have no control over) then use  
bo836@cleveland.freenet.edu or ah053@yfn.ysu.edu

BITNET: bo836%cleveland.freenet.edu@cunyvm or ah053%yfn.ysu.edu@ysub

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Date: 24 Mar 93 08:29:52 -0700

From: usc!howland.reston.ans.net!gatech!news.bu.edu!yvax.bu.edu!physc1.bu.edu!  
peterson@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <1993Mar18.144802.29529@newshost.lanl.gov>,  
<1993Mar21.042131.26584@porthos.cc.bellcore.com>, <1olckaINNpni@topaz.bds.com>  
Subject : Re: How long to get new Callsign?

They may claim a 90-day processing period at the FCC but I just received my ticket one day short of 9 weeks from the test date (20 Jan to 23 Mar). 62 days counting VEC processing is a far cry from 90 days (and I'm very glad I didn't have to wait 90 days because I was very anxious to get on the air).

73,

Bryan Peterson, KB7TEW  
Peterson@physc1.bu.edu

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Date: Wed, 24 Mar 1993 13:07:05 GMT

From: swrinde!zaphod.mps.ohio-state.edu!magnus.acs.ohio-state.edu!  
wvanhorn@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <NHLi1B1w165w@precipice.chi.il.us>, <C4Ap6G.IoK@fc.hp.com>, <1993Mar23.135145.20978@cbfsb.cb.att.com>  
Subject : Re: source for spools of wire

Far be it from me to argue with Forrest Gehrke who, I am sure, has forgotten more about antennas than I will ever know. But it seems to me that the question of using steel wire in antennas must depends upon (1) the frequency to be used and, (2) the radiation resistance of the antenna. Clearly the skin effect is a function of frequency and at long wavelengths, at which very long antennas are of most interest, it is far less than at high frequencies. Also, if one is building a rhombic, for example, the radiation resistance will be up in the neighborhood of 800 ohms. Even steel wire is a pretty good conductor compared with that.

About 50 years ago, either just before or just after WW2, QST had an article which I seem to remember was titled something like: "Iron Antennas for Copper Filled Pocketbooks". The author reported excellent results with steel (galvanized?) fence wire in antennas. A search of old QST files might give specific answers rather than unsupported opinions about this subject.

73, Van - W8UOF  
wvanhorn@magnus.acs.ohio-state.edu

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End of Info-Hams Digest V93 #370  
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